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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,794	09/05/2003	Marco Mauro	220061.404	7098

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EXAMINER
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NGUYEN, THU V

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/656,794	<b>Applicant(s)</b> MAURO ET AL.	
	<b>Examiner</b> Thu Nguyen	<b>Art Unit</b> 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/16/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

The response to the restriction requirement filed on October 5, 2004 has been entered. By this response, the species I (including claims 2-4 together with the generic claims 1, 7-9) has been elected without traverse, accordingly, claims 1-4, 7-9 are examined in this office action.

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. In claim 1, line 9, the alternative “and/or” is ambiguous. It is not clear if the claim should be interpreted as “and” and “or”.
- b. In claim 4, lines 1-2, the claimed “said accumulating step” lacks of antecedent basis, the claims on which claim 4 depends does not teach the accumulating step.
- c. In claim 7, lines 2; claim 8, line 2; claim 9, line 2, the claimed “the location of the data items” lacks of antecedent basis. The independent claim 1 does not teach examining the location of the data items.
- d. Other claims are rejected as being dependent on the rejected base claims.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew et al (US 6,438,484).

As per claim 1, Andrew teaches a method for diagnosing a vehicle compressed system, the method comprises: acquiring a number of operating data items associated with operation of the system (col.5, lines 24-37); processing the acquired operating data items and storing the data items to create a database (abstract); examining the data items to determine malfunction situations of the compressed-air generating system (col.6, lines 7-30, lines 54-59). Andrew does not explicitly teach acquiring operating data between turn-on and subsequent turn off of the system. However, gathering data between turn-on and turn off in one complete cycle of operation of a system would have been well known since it would have been well known that when the system is off parameters such as pressure or velocity of gas are not varying and are not useful in determining the functionality of the compressor. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to obtain data in a complete cycle of operation in the compressor of Andrew in order to provide continuous detection of malfunction of the compressor when the compressor is operating.

As per claim 2, Andrew teaches obtaining the air temperature (col.5, line 34). Moreover, since Andrew teaches that it would have been obvious to measures other interested parameters (col.5, lines 27-37), and since interested parameters such as the speed of the compressor, the temperature of the cooling fluid would have been well known parameters, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to also includes well known temperature and speed sensors to the system of Andrew in order to further checking the factors that affects the functionality of the compressor.

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew et al (US 6,438,484) in view of Lee et al (US 5,680,767) and further in view of Kobayashi et al (JP 55-096320).

As per claim 3, Lee teaches including fluid temperature exchange to the compressor (col.2, lines 59-63), and Kobayashi teaches calculating the temperature difference between the compressed air temperature and the cooling fluid temperature (constitution). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a heat exchanger at the output of the compressor of Andrew and to calculate the temperature difference between the compressed air temperature and the water temperature as taught by Kobayashi in order to determine closing valve status and to detect malfunction of the closing valve.

As per claim 4, Andrew teaches memorizing different number of operating states as a function of the acceleration and temperature of the engine (col.7, lines 8-20; col.8, lines 8-30). Andrew does not explicitly teach using the temperature difference and the speed for defining the operating states. However, determining temperature difference and the speed of the engine would have been well known parameters for use in monitoring the functionality of the gas turbine including compressed air generating system, using the well known parameters for defining operating state of the vehicle would have been both known and obvious design choice.

6. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew et al (US 6,438,484) in view of Olejack et al (US 6,138,081).

As per claim 7, Olejack suggests defining different regions corresponding to different operating states of the turbine engine, and determining the location of the data items within the region (col.2, lines 62-67; col.8, lines 17-31).

As per claim 8-9, Andrew teaches determining when a maximum value associated with an acquired operating state exceed an operating state (col.6, lines 54-59). Furthermore, determining a measured parameter as a function of time would have been well known. Moreover, since Andrew teaches the capability of determining operability and stall conditions and issuing alarm accordingly (col.6, lines 54-59), and since it is well known that the operability and stall conditions are normally define in predetermined zones of normal and abnormality, determining if the obtained data is within the normal or alarming region would have been obvious.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 305-7687, (for formal communications intended for entry)

**Or:**


(703) 305-7687 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451  
Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The  
examiner can normally be reached on Monday-Thursday from 8:00 am to 6:00 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Thomas Black, can be reached on (703) 305-8233. The fax phone number for this  
Group is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Group receptionist whose telephone number is (703) 308-1111.

  
**THU V. NGUYEN**  
**PRIMARY EXAMINER**  
November 2, 2004